

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/013902

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| A. CLASSIFICATION OF SUBJECT MATTER Int.Cl ⁷ G02F1/1339, G02F1/1341 | | |
| According to International Patent Classification (IPC) or to both national classification and IPC | | |
| B. FIELDS SEARCHED | | |
| Minimum documentation searched (classification system followed by classification symbols) Int.Cl ⁷ G02F1/1339, G02F1/1341 | | |
| Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2004 Kokai Jitsuyo Shinan Koho 1971-2004 Jitsuyo Shinan Toroku Koho 1996-2004 | | |
| Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| Y | JP 8-94984 A (Shibaura Engineering Works Co., Ltd.), 12 April, 1996 (12.04.96), Full text; all drawings (Family: none) | 1-3 |
| X | JP 2003-222886 A (Citizen Watch Co., Ltd.), 08 August, 2003 (08.08.03), Full text; all drawings | 4, 7 |
| Y | Full text; all drawings (Family: none) | 1-3, 5-6 |
| <input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex. | | |
| * Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family | | |
| Date of the actual completion of the international search 07 October, 2004 (07.10.04) | | Date of mailing of the international search report 26 October, 2004 (26.10.04) |
| Name and mailing address of the ISA/ Japanese Patent Office | | Authorized officer |
| Facsimile No. | | Telephone No. |

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|-----------|--|-----------------------|
| X Y | JP 7-110489 A (Rohm Co., Ltd.), 25 April, 1995 (25.04.95), Full text; all drawings (Family: none) | 7-9 2-3, 5-6 |
| X Y | JP 2002-174819 A (Seiko Epson Corp.), 21 June, 2002 (21.06.02), Full text; all drawings Full text; all drawings (Family: none) | 7-8 2, 5 |
| X | JP 9-318957 A (Toshiba Corp.), 12 December, 1997 (12.12.97), Full text; all drawings & US 5936695 A | 7 |
| X | JP 2002-303842 A (Seiko Epson Corp.), 18 October, 2002 (18.10.02), Full text; all drawings (Family: none) | 7 |
| A | JP 2000-39599 A (Hitachi, Ltd.), 08 February, 2000 (08.02.00), Full text; all drawings (Family: none) | 4-6 |

(19) 世界知的所有権機関
国際事務局(43) 国際公開日
2005年4月7日 (07.04.2005)

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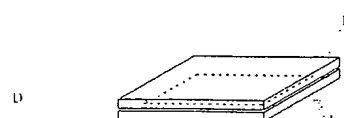
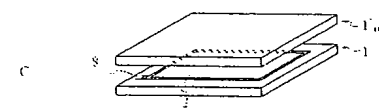
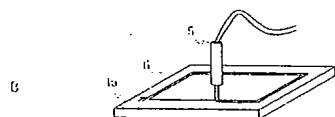
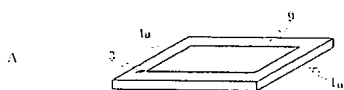
(10) 国際公開番号
WO 2005/031449 A1

- (51) 国際特許分類⁷: G02F 1/1339, 1/1341 (72) 発明者; および
(75) 発明者/出願人 (米国についてのみ): 赤井 喜洋 (AKAI, Yoshihiro) [JP/JP]; 〒6808634 鳥取県鳥取市立川町七丁目101番地 鳥取三洋電機株式会社内 Tottori (JP). 亀谷 雅之 (KAMETANI, Masayuki) [JP/JP]; 〒6808634 鳥取県鳥取市立川町七丁目101番地 鳥取三洋電機株式会社内 Tottori (JP).
- (21) 国際出願番号: PCT/JP2004/013902
- (22) 国際出願日: 2004年9月24日 (24.09.2004)
- (25) 国際出願の言語: 日本語
- (26) 国際公開の言語: 日本語
- (30) 優先権データ:
特願2003-336732 2003年9月29日 (29.09.2003) JP
- (71) 出願人 (米国を除く全ての指定国について): 三洋電機株式会社 (SANYO ELECTRIC CO., LTD.) [JP/JP]; 〒5708677 大阪府守口市京阪本通2丁目5番5号 Osaka (JP). 鳥取三洋電機株式会社 (TOTTORI SANYO ELECTRIC CO., LTD.) [JP/JP]; 〒6808634 鳥取県鳥取市立川町七丁目101番地 Tottori (JP).
- (81) 指定国 (表示のない限り、全ての種類の国内保護が可能): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

[続葉有]

(54) Title: MANUFACTURING PROCESS OF LIQUID CRYSTAL PANEL AND LIQUID CRYSTAL PANEL

(54) 発明の名称: 液晶パネルの製造方法及び液晶パネル



(57) Abstract: A process for manufacturing a liquid crystal panel where a liquid crystal is held between a pair of substrates is characterized by comprising the following steps (1)-(6). (1) A step of marking a specified figure (3) on one substrate (1), (2) a step of detecting the specified figure (3) on the one substrate (1), applying a sealing material (6) according to a predetermined pattern and providing a liquid crystal encapsulation opening (8) in the vicinity of the marking, (3) a step of joining another substrate (1') paired with the one substrate (1) thereto, (4) a step of cutting the joined substrates to obtain a pair of substrates, (5) a step of injecting a liquid crystal material through the liquid crystal encapsulation openings (8) of the pair of substrates thus obtained, and (6) a step of closing the liquid crystal encapsulation openings (8). According to the invention, a process for manufacturing a liquid crystal panel in which positioning of the liquid crystal encapsulation opening (8) is facilitated in the step of applying the sealing material (6) can thereby be provided.

(57) 要約: 本発明は、一対の基板間に液晶を挟持してなる液晶パネルの製造方法であって、以下の(1)～(6)の工程を有することを特徴とする液晶パネルの製造方法に関する。(1)一方の基板1に所定の図形3をマーキングする工程、(2)前記一方の基板1の所定の図形3を検出し、定められたパターンにしたがってシール材6を塗布し、マーキング付近に液晶封入口8を設ける工程、(3)前記一方の基板1と対になる他方の基板1'を貼り合わせる工程、(4)前記貼り合わせたものを切断して1対の基板を得る工程、(5)前記得られた一対の基板の前記液晶封入口8から液晶材料を注入する工程、(6)前記液晶封入口8を閉鎖する工程。本発明によればシール材6の塗布工程で液晶封入口8の位置決めを容易に行うことのできる液晶表示装置の製造方法を提供し得る。



NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG,
SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,
TD, TG).

添付公開書類:

- (84) 指定国 (表示のない限り、全ての種類の広域保護が可能): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF,

- 国際調査報告書
- 補正書・説明書

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

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| Date of mailing (day/month/year) 25 February 2005 (25.02.2005) | IMPORTANT NOTIFICATION |
| Applicant's or agent's file reference JJP04-9850 | |
| International application No. PCT/JP04/013902 | International filing date (day/month/year) 24 September 2004 (24.09.2004) |
| International publication date (day/month/year) | Priority date (day/month/year) 29 September 2003 (29.09.2003) |
| Applicant SANYO ELECTRIC CO., LTD. et al | |

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| <u>Priority date</u> | <u>Priority application No.</u> | <u>Country or regional Office or PCT receiving Office</u> | <u>Date of receipt of priority document</u> |
|--------------------------------|---------------------------------|---|---|
| 29 September 2003 (29.09.2003) | 2003-336732 | JP | 10 February 2005 (10.02.2005) |

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